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Laytime and demurrage implications in voyage charterparties for chemical tankers

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Citations (2) References (23) Figures (7)

Figures

List of voyage trade lanes a…
Features of each route fr…
Sum of demurrage or…
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Despatch as a percentage o…
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Laytime and demurrage implications in voya charterparties for chemical tankers

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Abstract: Maritime transportation is one of the worst offenders for air, water pollution, and greenhouse gas emissions (GHG). Reducing the emissions in shipping is a common goal for all stakeholders involved in the shipping process. The purpose of this paper was to explore the implications of the laytime and demurrage provisions when using existing charterparties and to suggest how the areas where charterers are exposed to demurrage can be addressed and thus improve sustainability. A comparative analysis was conducted on selected standard voyage charterparties. The findings revealed various areas that do not protect a charterer's interest. It is proposed that in order to solve this challenge a global group consisting of stakeholders be formed to collectively design laytime and demurrage clauses in order to achieve greater sustainability and reduce demurrage. A revised charterparty form for the transportation of chemical liquid bulk chemicals by tankers could then be created.

Keywords: laytime; demurrage; voyage charterparties; chemical tankers; maritime; sustainability; sustainable shipping.

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Biographical notes: Christine Padayachee is a former Masters' student of the University of KwaZulu Natal. Her study deal with laytime and demurrage implications in voyage charterparties.

Micheline Juliana Naude is an academic in the School of Management, IT & Governance at the University of KwaZulu-Natal. Her area of expertise is in supply chain management in the areas of purchasing, operations and logistics management.

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1 Introduction and background

Unarguably, the maritime industry is of vital importance with total volumes of global trade in 2018, reaching 11 billion tons (UNCTAD, 2019). Over the years, sustainability in the maritime industry has attracted growing attention through sustainable shipping as a consequence of the contribution to global greenhouse gas emissions (GHG) and air pollution in ports. Improving energy efficiency and reducing GHG emissions is key in the development of sustainable shipping (Ahokas, 2019; Wu et al., 2019). Since maritime transportation consumes a significant amount of fuel, it is essential to achieve greater sustainability by considering several environmentally friendly policies
steaming, speed optimisation, reducing waiting time and fuel-efficient ves
2017).

Waiting times for various modes of transport, including ships, charac
system inefficiencies. Measures to reduce waiting times in ports, are l
transport GHG emissions and lower costs. A faster vessel turnarou
considered one of the most cost-effective energy efficiency measures av
reduces pollution in port cities – ports are usually located close to heavily
(Poulsen and Sampson, 2020). Ndikom et al. (2017) posit that non-op
demurrage and laytime charges without considering how it affects shipper
and the cost of goods poses a challenge to sustainable shipping industr

demurrage. It is proposed that additional clauses could achieve greater sustainability by reducing waiting times at ports, potentially abating GHG emissions and lowering costs. For example, loading when all tanks are not ready, would reduce waiting time at the ports and lower costs. However, as observed by Poulsen and Sampson (2020) while the reduction of waiting time at the ports has the potential to abate GHG emissions from shipping, the complexity of achieving this should not be underestimated.

A charterparty is an agreement between a ship-owner and a charterer. A charterer can hire part or the whole of a ship from a ship-owner, with or without her non-cargo carrying space, with or without crew, for a limited time or for a voyage, a succession of voyages, or other stated purpose (Hare, 2009). Charterparty agreements govern the relationship between the ship-owner and charterer and determine the obligations of both parties based on the intention and purpose for which the agreement has been entered into. The voyage charterparty is not subject to any statutory regimes and is commonly applicable through the use of standard contract forms (Singh, 2011). This type of agreement is usually negotiated in a free market and is subject to the bargaining powers of the parties (Wilson, 2010).

Currently, there is a limited number of standard charterparties for the shipment of bulk liquid chemicals, with most being created for the oil tanker industry (Voropaeva et al., 2012). Bulk liquid chemicals are high value commodities, carried by super-segregated tankers with very specific, technical requirements for carriage (UNCTAD, 2019). Standard charterparty types do not always cater for the unique requirements and challenges of the bulk liquid chemical shipping environment, for example, different laytime and demurrage. In most cases, additional clauses need to be included to cover the associated risks prevalent in the chemical parcel trade (BIMCO, 2008). Laytime is the period of time that is allowed for the charterer to perform its loading and discharging operations; demurrage is the monetary compensation when the charterer uses more time than the period of laytime allowed (Cooke et al., 2014; Schofield, 2005; Tiberg, 2013).

The different aspects of laytime and opposing opinions on its interpretation have been the source of various maritime legal disputes. Clauses in a charterparty may be interpreted differently when determining the period of time that is available for loading and discharging, or when the laytime clock commences, when it is interrupted and when it ceases (Tiberg, 2013). Against this background, the aim of the study was:

- to analyse the existing charterparty forms and to provide insight into the meaning of the provisions of the existing voyage charterparties in terms of laytime and demurrage
- to explore challenges associated when using existing voyage charterparties in the chemical tanker environment
- to determine whether including additional clauses in the forms will address the areas where charterers are exposed to demurrage, and ultimately achieve greater sustainability.

Studies that deal with the evaluation of more recent and modern charterparty forms are limited. Therefore, the findings and recommendations of this study contribute to the existing body of knowledge by providing new insights into the field of laytime and demurrage. Moreover, the implementation of the proposed recommendations could assist charterers in the chemical bulk liquid environment to minimise their demurrage exposure, reduce air pollution in ports, reduce GHG emissions and achieve cost savings.

The paper consists of five parts. The first part provides the introduction and
background to this study. Next is a review of literature relevant to the res
by an explanation of the research methodology. The fourth part presents
the findings and explanation thereof, and the chapter concludes with re
and concluding remarks.

2 Literature review

Sustainability can be defined as the continuation or survival of the b
requires management to develop most of its societal engagement in
economic goals of the business. However, sustainability is achieved

resources as well as maintaining functioning societies are significant challenges for many businesses (Siebenhüner and Arnold, 2007; Arnold, 2018), including stakeholders in the shipping industry. Thus, unsustainable management decisions, neglecting social and environmental issues will prevent businesses from improving in terms of sustainability (Schaltegger et al., 2012; Arnold, 2017).

Sustainability in maritime logistics is important due to the sector's contribution to global GHG emissions and air pollution in port areas (Wu et al., 2019). The International Maritime Organization (IMO) is committed to environmental, social, and economic sustainability in international shipping (Kenton, 2019). Until 2012, CO_2 emissions from maritime logistics accounted for 2.2% of total global GHG emissions. It is forecasted that

emissions resulting from maritime logistics could grow between 50% and 250% by 2050, primarily due to the growth of the global maritime trade (Wu et al., 2019; IMO, 2018).

2.1 The voyage charterparty

In voyage charterparties, laytime and demurrage is a complex issue for charterers and ship-owners. Tanker ship-owners and the charterers, have economic incentives to optimise port calls (Panayides, 2018; Poulsen and Sampson, 2020). Charterers pay freight, which covers aspects such as the speed and fuel consumption of the vessel, the voyage distance and crew costs as well as the market rate of the freight market. Time delays that arise during global shipping activities prevent the owner from fulfilling other intended commercial activities. The evolution of laytime and demurrage clauses led to the introduction of a time meter to cater for possible delays during loading or discharge at ports and to mitigate against losses caused by time delays for the ship-owner (Tiberg, 2013).

In a voyage charter, cargo is transported from one point to another in exchange for a price per tonne of that cargo. The price paid per tonne is referred to as the freight rate and is calculated per unit of shipped cargo. The ship-owner generally pays all the costs and consequently takes the operational and commercial risks (Stopford, 2009).

The following are the commonly used existing standard voyage charterparties:

- ASBATANKVOY (Association of Ship Brokers and Agents Tanker Voyage Charter Party)
- ASBACHEMVOY (Association of Ship Brokers and Agents Chemical Voyage Charter Party)
- BPVOY 5 (British Petroleum Voyage Charter Party 5)
- SHELLVOY6 (Shell Voyage Charter Party 6)
- EXXONMOBILVOY2012 (ExxonMobil Voyage Charter Party 2012)
- BIMCHEMVOY 2008 (Baltic and International Maritime Council Chemical Voyage Charter Party 2008).

The charterparty forms were developed by the major oil companies listed above, who are the ship-owners. Therefore, charterparty forms tend to favour these ship-owners rather than the charterers. The exceptions to this are BIMCHEMVOY 2008 and ASBACHEMVOY.

2.2 Duties and obligations of owners and charterers

The main implied obligations for the owner are the undertaking of the s
the vessel and reasonable dispatch. To provide a seaworthy vessel
obligation; seaworthiness includes the physical state of the vessel, the co
crew, and the fuel, supplies, necessary equipment and facilities required i
that cargo (Wilson, 2010). The obligation of reasonable dispatch implies
will proceed on the voyage, loading and discharging at the agreed ti
reasonable time.

For the charterer, there are also certain obligations that must be fulfilled, such as nominating a safe port and having cargo ready for loading (Irwin, 2013; Steamship Mutual, 1999; Thomas, 2006).

2.3 Laytime and demurrage

Laytime is the period of time during which the vessel will be at the charterer's disposal for the loading and unloading of the cargo (Singh, 2011). Failure by the charterer to load within the allowed laytime will result in a breach of the contract, and the ship-owner can claim demurrage at an agreed rate per day. If a breakdown on the ship (e.g., a crane or cargo pump breakdown) causes delayed loading or discharging (longer time in port than that specified in the charterparty), then the charterer can claim from the ship-owner (Poulsen and Sampson, 2020).

It is generally accepted that there are three pre-requisites for laytime to commence. These are:

1 The vessel has to tender a valid notice of readiness (NOR), which confirms that it is legally and physically ready and that laytime may commence. If this does not occur, the ship-owner would not be in a position to earn demurrage (Wilson, 2010).

2 The vessel must have arrived at the destination specified in the Charter (Tanriverdi, 2011). Under a port voyage charterparty, delay risks are borne by the charterers from the moment the ship has arrived at the port (Aspragkathou, 2005; Singh, 2011).

3 The vessel has to be actually ready and in a fit condition to receive or discharge her cargo (Wilson, 2010). This means that the vessel must be in a position where its holds and tanks are clean and ready so as to able to receive and carry the cargo; all necessary documentation must be ready; no laws or regulations can stand in the way of access of the charterer to the vessel, with all port health and documentary requirements being completed in accordance with that specific port regulation (Aspragkathou, 2005).

2.4 Interruptions and exceptions to laytime

Most tanker charterparties contain specific exception clauses for certain delays (Baughen, 2015). In terms of laytime and demurrage, exceptions are events or conditions where time does not run against the charterer, and interruptions to laytime are those periods of time that are outside the scope of the laytime. Such issues include the following.

Congestion

It follows from the *Laura Prima*[1] case that the charterparty must contain a clause requiring the charterer to provide a berth that is reachable on the vessel's arrival and, if there is congestion, any time delays in obtaining an available berth will be for the account of the charterer.

Strike

Strike means a stoppage of work on the vessel because of industrial action. Exclusions are partial actions, such as the refusal to work overtime, go-slows or working to rule (Cooke et al., 2014; Schofield, 2005). The ship-owner will not be treated as responsible

for striking tug-boatmen or pilots under the general law and the charterer
have a clause exempting strike action from tug-boatmen and pilots for pr
a case (Cooke et al., 2014).

Storm

A storm on the Beaufort scale is a wind force of 10, which is a speed of that it is therefore inappropriate to use it to define the term ‘storm’ for the purpose of demurrage, which is only likely to be incurred when the vessel is in comparatively sheltered waters. Schofield (2005) observed that since ‘storm’ has a recognised nautical meaning, a better phrase should be used such as ‘severe weather’.

Bunkering

Bunkering is the supplying and loading of fuel for the ship and includes the shipboard logistics of loading fuel and distributing it among available bunker tanks. In the case of the *Stolt Spur*[2] the judges held that in cases where the vessel is unavailable for the charterers’ operations because the vessel is used for ship-owners’ own operations, demurrage would not be applicable for charterers during this period. Charterers tend to rely on this case when they find that ship-owners are taking bunkers when awaiting berth even though they did not cause any delay.

2.5 *Reachable on arrival*

These words were considered and this principle was established in the case of the *Laura Prima*.[1] The characteristics of arriving at the berth are that: (1) it has to be safe; and (2) it has to be reachable on arrival (Davies, 2006; Schofield, 2005). This means that if a berth cannot be reached on arrival, the warranty is broken unless there is some relevant protecting exception.

2.6 *Breakdown of machinery or equipment*

In most charterparties there is a clause for the charterer and the owner indicating what to do when machinery and equipment break down (Wilford et al., 2003). Usually time counting for such a break will be split 50/50. Alternatively, if the breakdown is on the shore or terminal of the charterer the demurrage rate will be halved for that particular period.

2.7 *Fault of the ship-owner*

In cases where loading or discharging is interrupted as a result of a fault by the ship-owner, laytime does not count during this period (Baughen, 2015). In the case of *The Union Amsterdam*[3] it is suggested that laytime may be suspended regardless of whether the ship-owner is protected by an exceptions’ clause in the charter.

2.8 *Recommended additional clauses*

Most voyage charterparties contain clauses on common activities that occur on a typical voyage or shipment. These clauses provide the basis of how laytime and demurrage will be evaluated when these activities occur. In some cases, these are included as additional clauses. Examples include loading when all tanks are not ready, early loading, the Conoco weather clause, and shifting between berths. The Conoco weather clause refers to delays in berthing and after berthing caused by bad weather. According to this clause, delays in berthing for loading or discharging or any delays after berthing which are due to weather conditions would count as half laytime or, if on demurrage, at one half demurrage rate (Irwin, 2013).

3 Research methodology

3.1 *Approaches used*

Since this is an exploratory and comparative study, a qualitative resear
adopted. Two approaches were used for this study. Firstly, a case stu
voyages carrying bulk chemicals from different major trade lanes or chem
Republic of South Africa (RSA) for a period of 12 months was condu
an exploratory and comparative analysis of the selected standard charterparties was

3.2 Target population

A target population can be defined as a full set of cases or group members from which a sample is taken (Saunders et al., 2019). The population in this study consisted of existing standard voyage charterparties. For the case study, the current population consists of 9–12 vessels exporting chemicals on a monthly basis. Each vessel loads in the ports of Durban and Richards Bay and, depending on the route, each voyage takes between 2-3 months to complete.

3.3 Sampling

There are two sampling techniques available, probability and non-probability sampling. With probability sampling, the chance of each case being selected is known and is equal for all cases. With non-probability sampling, the chance of each case being selected is not known (Saunders et al., 2019; Sekaran and Bougie, 2016). A non-probability sample that conforms to certain criteria is called a purposive sample (Cooper and Schindler, 2006). In this study, a non-probability purposive sampling technique was deemed appropriate because information was obtained from specific target groups (Sekaran and Bougie, 2016). Only data from the latest or most relevant standard voyage charterparties were included in this study.

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Christine Padayachee · Micheline Naude

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A proposed risk framework as a tool for sustainability for the South African wine industry

February 2022 · South African Journal of Economic and Management Sciences (SAJEMS)

Micheline Naude · Rodney Trevor Naude

Aim: There is an existing gap in the literature that addresses the importance of risk management as a tool for sustainability in the winemaker's activities and operations. The purpose of this article is to propose a risk management framework for the South African wine industry that can be used as a tool for sustainability. Setting: The study comprised 10 participants at five wine-producing ... [Show full abstract]

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The perspectives of beginner principals on their new roles in school leadership and management: A So...

May 2020 · South African Journal of Education

Malesela Gilbert Sepuru · Mokgadi Agnes Mohlakwana

In the study reported on here we aimed to explore how beginner principals perceived their roles as new appointees. School principals are expected to demonstrate proficiency when performing leadership and management roles in schools. Based on the fact that no certificate for principalship exists, newly appointed principals rely on their teaching experience to fulfil the responsibilities of the ... [Show full abstract]

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ESTIMATION OF THE TIME OF THE VESSEL'S ARRIVAL AT PORT

March 2019 · Science and Transport Progress Bulletin of Dnipropetrovsk National University of Railway Transport

Svitlana Onyshchenko · Yuliia Koskina

Purpose. The paper aims at the assessment of the probability of the vessel's arrival at the po
the different combination of the voyage charter-party (C/P) terms and their wordings. Method
port was formed considering the C/P terms and their wordings. The time intervals for which it
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